Capstone Project

Supporting "**Foodies by Freddy**" company on sales demand forecasting

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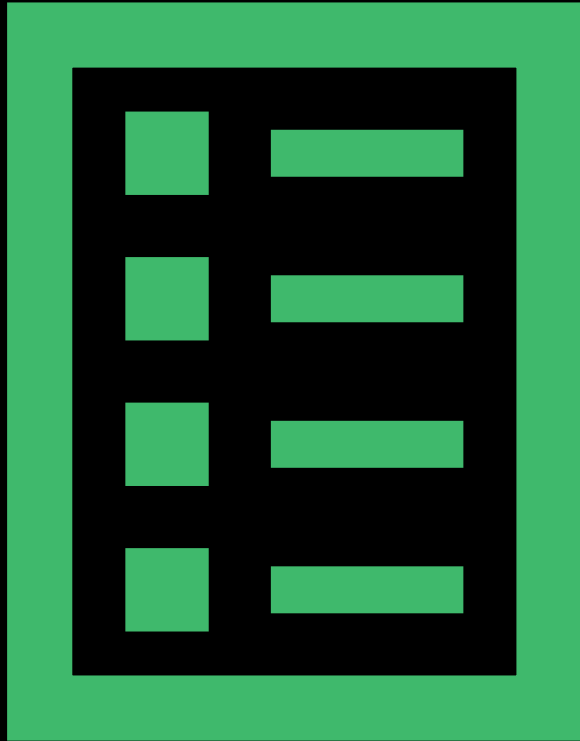
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Preparing for the Proposal

Client Selection

Food delivery has become a crucial business domain with the recent COVID outbreak.

For food delivery companies, demand forecasting is a key component, and it will support heavily in maintaining right amount of stock on hand at any given time.

This made me to select my client **"Foodies by Freddy"** in order to support them with a proper analysis on their food demand patterns.

Importing the dataset

The dataset consisted of 3 main files:
- Train.csv
- Meal_info.csv
- Fulfilment_center_info.csv

Meal_info is the meal details dimensions. Fulfilment_center_info is the outlet details dimension. All the 3 datasets were imported to a jupyter notebook.

```
[1]: import pandas as pd

[2]: train = pd.read_csv('train.csv')

[3]: train.head(2)
```

t[3]:

	id	week	Week_Start_Date	center_id	meal_id	checkout_price	bas
0	1379560	1	1/29/2018	55	1885	136.83	
1	1466964	1	1/29/2018	55	1993	136.83	

```
n [5]: meal = pd.read_csv('meal_info.csv')

[6]: meal.head(2)
```

5]:

	meal_id	category	cuisine
0	1885	Beverages	Thai
1	1993	Beverages	Thai

```
outlets = pd.read_csv('fulfilment_center_info.csv')

outlets.head(2)
```

|	center_id	city_code	region_code	center_type	op_area
0	11	679	56	TYPE_A	3.7
1	13	590	56	TYPE_B	6.7

Entity Relationship Diagram
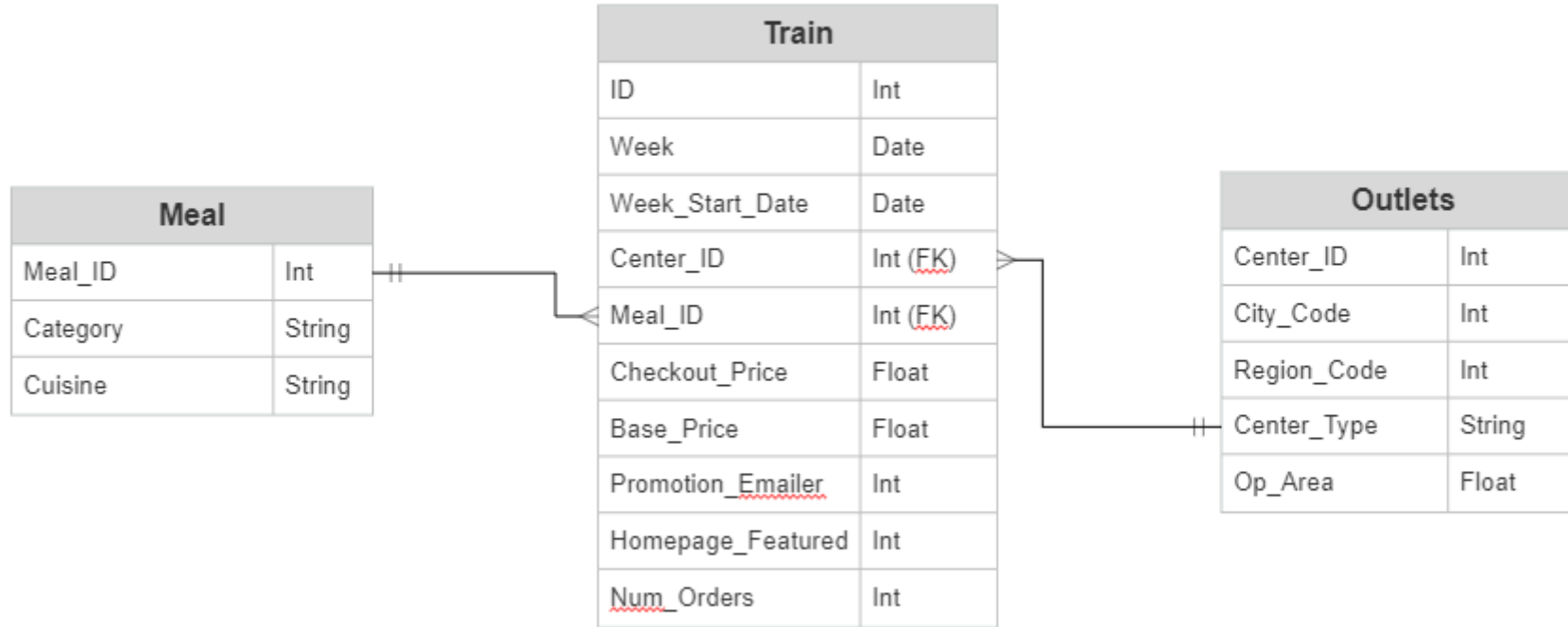
Exploring the Data

The 3 datasets were combined to a master dataset. Following visualizations were plotted to explore the data.

- Total sales by Outlet center type
- Total sales by cuisine
- Total sales by category
- Total sales and Campaign sales Weekly trends
- Total and Campaign sales variation with categories
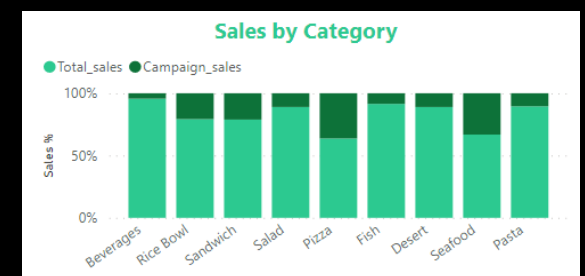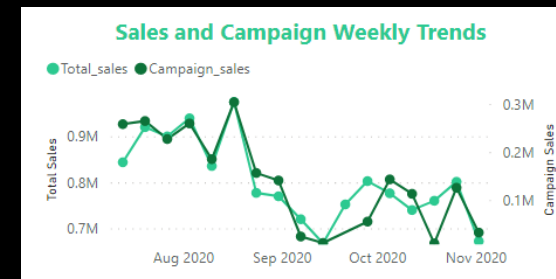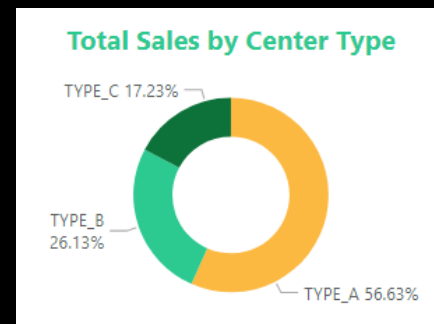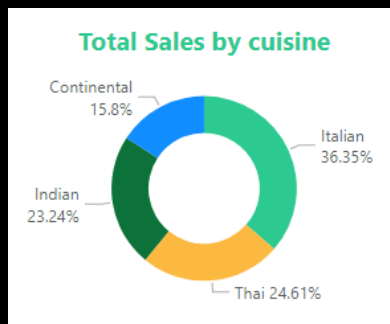
Project Proposal Development

Project Description

In this project, I am focusing to support my client **"Foodies by Freddy"** by analyzing the sales details.

As Food delivery has become a crucial business domain with the recent COVID outbreak, the marketing and analytics aspects has been increased within the domain.

The project will focus into identify sales trends, highly selling categories, less selling categories, the effect of email promotions and website promotions to the sales etc.

Hypothesis Details

Items with email campaigns are being sold more

Outlet type affects the number of sales

Homepage featured items have higher sales

Certain cities have certain meal categories with higher sales

Approach

Data Collection

Making relationships between data sources

Checking into incorrect, missing data

Analyzing the sales trends

Analyzing the category wise sales breakdowns

Comparison between promo and non promo sales

Comparison between home page features vs not featured item sales

Thank You !